OptiPlex Tower Plus 7020

Technical Guidebook

DELLTechnologies

Notes, cautions, and warnings

(i) **NOTE:** A NOTE indicates important information that helps you make better use of your product.

⚠ **CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.**

⚠ **WARNING: A WARNING indicates a potential for property damage, personal injury, or death.**
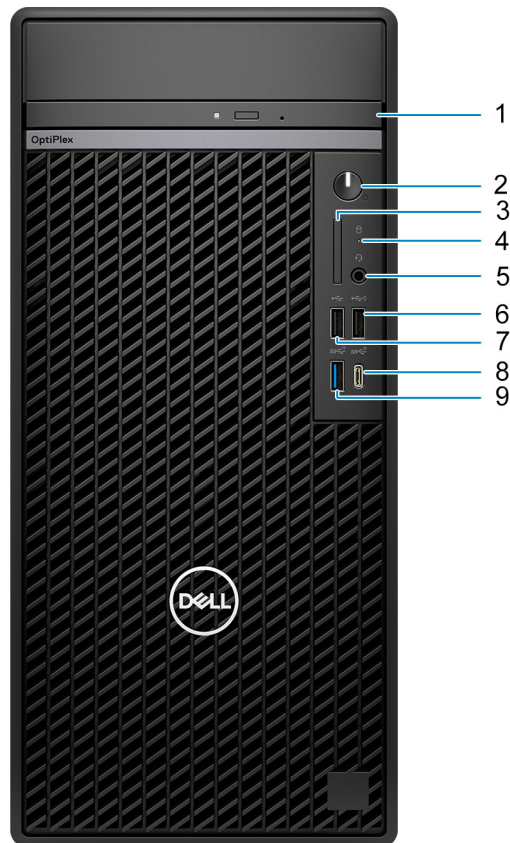
Contents

Views of OptiPlex Tower Plus 7020

Front

Figure 1. Front view

1. **Slim optical drive (optional)**

   Reads from and writes to CDs and DVDs.

2. **Power button with diagnostic LED**

   Press to turn on the system if it is turned off, in sleep state, or in hibernate state.

   When the system is turned on, press the power button to put the system into sleep state; press and hold the power button for four seconds to force shut-down the system.

   > (i) **NOTE:** You can customize the power-button behavior in Windows.

   Indicates the power-supply state.

3. **SD-card slot (optional)**

   Reads from and writes to the SD card.

4. **Hard-drive activity light**

The activity light turns on when the system reads from or writes to the hard drive.

5. **Universal Audio port**

   Connect headphones or a headset (headphone and microphone combo).

6. **USB 2.0 (480 Mbps) with PowerShare port**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 480 Mbps.

   ⓘ **NOTE:** PowerShare enables you to charge your USB devices even when your system is turned off.

   ⓘ **NOTE:** If a USB device is connected to the PowerShare port before the system is turned off or in hibernate state, you must disconnect and connect it again to enable charging.

7. **USB 2.0 (480 Mbps) port**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 480 Mbps.

8. **USB 3.2 Gen 2x2 (20 Gbps) Type-C port**

   Connect devices such as external storage devices, printers, and external displays. Provides data transfer speeds of up to 20 Gbps.

   ⓘ **NOTE:** This port does not support video/audio streaming.

9. **USB 3.2 Gen 2 (10 Gbps) port**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 10 Gbps.

Back
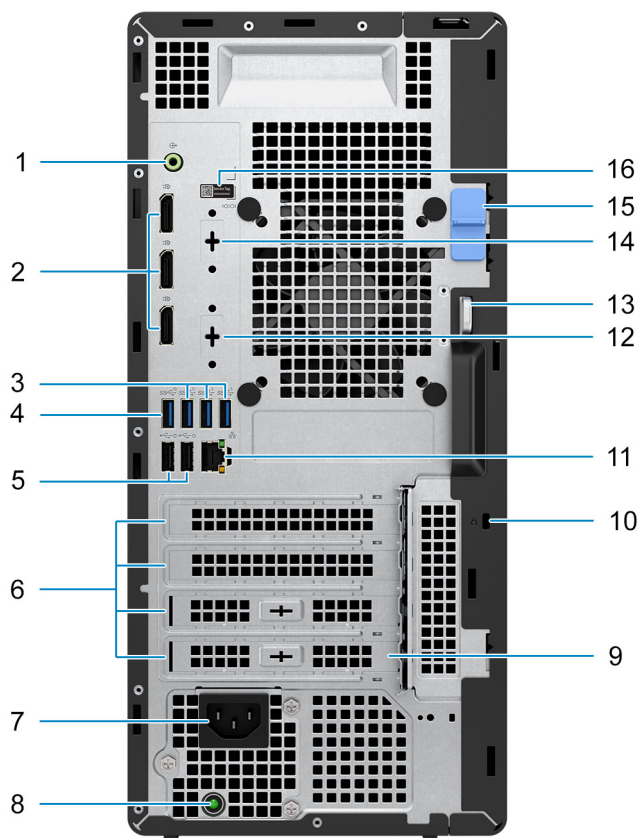
Figure 2. Back view

1. **Retaskable line-out/line-in audio port**

   Connect recording or playback devices such as microphone or CD player.

   Connect speakers.

2. **Three DisplayPort 1.4a ports (HBR2 support)**

   Connect an external display or a projector.

   (i) **NOTE:** The maximum resolution that is supported is up to 4096 x 2304 @ 60 Hz.

3. **Three USB 3.2 Gen 1 (5 Gbps) ports**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 5 Gbps.

4. **USB 3.2 Gen 2 (10 Gbps) port**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 10 Gbps.

5. **Two USB 2.0 (480 Mbps) with SmartPower On ports**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 480 Mbps.

   (i) **NOTE:** When USB wake is enabled in the BIOS the system will power on or wake from hibernation when a USB mouse or keyboard that is connected to this port is used.

6. **Four expansion card slots**

   Connect a PCI-Express card such as graphics, audio, or network card to enhance the capabilities of your system.

7. **Power-cord connector port**

   Connect a power cable to provide power to your system.

8. **Power-supply diagnostic light**

   Indicates the power-supply state.

9. **External puck antenna (optional)**

   Connect an external puck antenna.

10. **Security-cable slot (for Kensington locks)**

    Connect a security cable to prevent unauthorized movement of your system.

11. **Network port**

    Connect an Ethernet (RJ45) cable from a router or a broadband modem for network or Internet access.

12. **Optional port (HDMI 2.1/DisplayPort 1.4a (HBR3 support)/VGA/USB 3.2 Gen 2 (10 Gbps) Type-C with DisplayPort port)**

    The port available at this location may vary depending on the optional I/O card installed on your computer.

    - **HDMI 2.1 port**

      Connect to a TV, external display or another HDMI-in enabled device. Maximum resolution supported up to 4096 x 2160 @ 60 Hz.

    - **DisplayPort 1.4a (HBR3 support)**

      Connect an external display or a projector. Maximum resolution supported up to 5120 x 3200 @ 60 Hz.

    - **VGA port**

      Connect an external display or a projector. Maximum resolution supported up to 1920 x 1200 @ 60 Hz.

    - **USB 3.2 Gen 2 (10 Gbps) Type-C with DisplayPort port**

      Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 10 Gbps. Maximum resolution supported up to 5120 x 3200 @ 60 Hz with a Type-C to DisplayPort adapter.

13. **Padlock ring**

    Attach a standard padlock to prevent unauthorized access to the interior of your system.

14. **Serial port (optional)**

    Connect serial I/O devices.

15. **Release latch**

    Lock or unlock the side cover to the system chassis. Slide the latch to the unlock position to release the side cover.

16. **Service Tag label**

    The Service Tag is a unique alphanumeric identifier that enables Dell service technicians to identify the hardware components in your system and access warranty information.

Specifications of OptiPlex Tower Plus 7020

Dimensions and weight

The following table lists the height, width, depth, and weight of your OptiPlex Tower Plus 7020.

Table 1. Dimensions and weight

Description	Values
Height	367 mm (14.45 in.)
Width	169 mm (6.65 in.)
Depth	300.80 mm (11.84 in.)
Weight ⓘ **NOTE:** The weight of your computer depends on the configuration ordered and manufacturing variability.	• Minimum: 5.93 kg (13.07 lb) • Maximum: 9.63 kg (21.24 lb)

Processor

The following table lists the details of the processors that are supported by your OptiPlex Tower Plus 7020.

Table 2. Processor

Description	Option one	Option two	Option three	Option four	Option five	Option six	Option seven	Option eight
Processor type	14th Gen Intel Core i3-14100	14th Gen Intel Core i5-14500 vPro	14th Gen Intel Core i5-14600 vPro	14th Gen Intel Core i5-14600K vPro	14th Gen Intel Core i7-14700 vPro	14th Gen Intel Core i7-14700K vPro	14th Gen Intel Core i9-14900 vPro	14th Gen Intel Core i9-14900K vPro
Processor wattage	60 W	65 W	65 W	125 W	65 W	125 W	65 W	125 W
Processor total core count	4	14	14	14	20	20	24	24
Performance-cores	4	6	6	6	8	8	8	8
Efficient-cores	None	8	8	8	12	12	16	16
ⓘ **NOTE:** Intel Hyper-Threading Technology is only available on Performance-cores.								
Processor total thread counts	8	20	20	20	28	28	32	32
Processor speed	Up to 4.70 GHz	Up to 5 GHz	Up to 5.20 GHz	Up to 5.30 GHz	Up to 5.30 GHz	Up to 5.50 GHz	Up to 5.40 GHz	Up to 5.60 GHz
Performance-cores frequency								

Table 2. Processor (continued)

Description		Option one	Option two	Option three	Option four	Option five	Option six	Option seven	Option eight
	Processor base frequency	3.50 GHz	2.60 GHz	2.70 GHz	3.50 GHz	2.10 GHz	3.40 GHz	2 GHz	3.20 GHz
	Maximum turbo frequency	4.70 GHz	5 GHz	5.20 GHz	5.30 GHz	5.30 GHz	5.50 GHz	5.40 GHz	5.60 GHz
Efficient-cores frequency									
	Processor base frequency	Not applicable	1.90 GHz	2 GHz	2.60 GHz	1.50 GHz	2.50 GHz	1.50 GHz	2.50 GHz
	Maximum turbo frequency	Not applicable	3.70 GHz	3.90 GHz	4 GHz	4.20 GHz	4.30 GHz	4.30 GHz	4.40 GHz
Processor cache		12 MB	24 MB	24 MB	24 MB	33 MB	33 MB	36 MB	36 MB
Integrated graphics		Intel UHD Graphics 730	Intel UHD Graphics 770	Intel UHD Graphics 770	Intel UHD Graphics 770	Intel UHD Graphics 770	Intel UHD Graphics 770	Intel UHD Graphics 770	Intel UHD Graphics 770

Chipset

The following table lists the details of the chipset that is supported for your OptiPlex Tower Plus 7020.

Table 3. Chipset

Description	Values
Chipset	Intel Q670
Processor	14th Gen Intel Core i3 14th Gen Intel Core i5 vPro/i5K vPro 14th Gen Intel Core i7 vPro/i7K vPro 14th Gen Intel Core i9 vPro/i9K vPro
DRAM bus width	64-bit
Flash EPROM	32 MB + 16 MB
PCIe bus	Up to Gen4

Operating system

Your OptiPlex Tower Plus 7020 supports the following operating systems:

- Windows 11 Home
- Windows 11 Pro
- Windows 11 Pro National Education
- Ubuntu Linux 22.04 LTS

Memory

The following table lists the memory specifications of your OptiPlex Tower Plus 7020.

Table 4. Memory specifications

Description	Values
Memory slots	Four UDIMM slots
Memory type	DDR5
Memory speed	3600 MT/s 4000 MT/s 4400 MT/s
Maximum memory configuration	128 GB
Minimum memory configuration	8 GB
Memory size per slot	8 GB, 16 GB, or 32 GB
Memory configurations supported	8 GB: 1 x 8 GB, DDR5, 4400 MT/s, UDIMM, single-channel 16 GB: 1 x 16 GB, DDR5, 4400 MT/s, UDIMM, single-channel 16 GB: 2 x 8 GB, DDR5, 4400 MT/s, UDIMM, dual-channel 32 GB: 1 x 32 GB, DDR5, 4400 MT/s, UDIMM, single-channel 32 GB: 2 x 16 GB, DDR5, 4400 MT/s, UDIMM, dual-channel 32 GB: 4 x 8 GB, DDR5, 4000 MT/s, UDIMM, quad-channel 64 GB: 2 x 32 GB, DDR5, 4400 MT/s, UDIMM, dual-channel 64 GB: 4 x 16 GB, DDR5, 4000 MT/s, UDIMM, quad-channel 128 GB: 4 x 32 GB, DDR5, 3600 MT/s, UDIMM, quad-channel

Memory matrix

The following table lists the memory configurations supported on your OptiPlex Tower Plus 7020.

Table 5. Memory matrix

Configuration	Slot			
	UDIMM1	UDIMM2	UDIMM3	UDIMM4
8 GB DDR5	8 GB			
16 GB DDR5	8 GB	8 GB		
16 GB DDR5	16 GB			
32 GB DDR5	8 GB	8 GB	8 GB	8 GB
32 GB DDR5	16 GB	16 GB		
32 GB DDR5	32 GB			
64 GB DDR5	16 GB	16 GB	16 GB	16 GB

Table 5. Memory matrix (continued)

Configuration	Slot			
	UDIMM1	UDIMM2	UDIMM3	UDIMM4
64 GB DDR5	32 GB	32 GB		
128 GB DDR5	32 GB	32 GB	32 GB	32 GB

External ports

The following table lists the external ports of your OptiPlex Tower Plus 7020.

Table 6. External ports

Description	Values
Network port	One RJ45 Ethernet port 10/100/1000 Mbps
USB ports	- Three USB 3.2 Gen 1 (5 Gbps) ports - Two USB 2.0 (480 Mbps) with SmartPower On ports - One USB 2.0 (480 Mbps) with PowerShare port - One USB 2.0 (480 Mbps) port - One USB 3.2 Gen 2x2 (20 Gbps) Type-C port ⓘ **NOTE:** This port does not support video/audio streaming. - One USB 3.2 Gen 2 (10 Gbps) port - One USB 3.2 Gen 2 (10 Gbps) port - One optional USB 3.2 Gen 2 (10 Gbps) Type-C with DisplayPort port
Audio port	- One Universal Audio port - One retaskable line-in/line-out audio port
Video port	- Three DisplayPort 1.4a (HBR2 support) ports ⓘ **NOTE:** The maximum resolution supported by DisplayPort 1.4a is up to 4096 x 2304 @ 60 Hz. - One optional port (HDMI 2.1/DisplayPort 1.4a (HBR3 support)/VGA/USB 3.2 Gen 2 (10 Gbps) Type-C with DisplayPort port) ⓘ **NOTE:** The maximum resolution supported by optional port is **HDMI 2.1 port:** Up to 4096 x 2160 @ 60 Hz **DisplayPort 1.4a (HBR3 support) port:** Up to 5120 x 3200 @ 60 Hz **VGA port:** Up to 1920 x 1200 @ 60 Hz **USB 3.2 Gen 2 (10 Gbps) Type-C with DisplayPort port:** Up to 5120 x 3200 @ 60 Hz
I/O port	One optional serial port
Media-card reader	One optional SD-card 4.0 slot
Power port	One power-cable connector
Security-cable slot	- One security-cable slot (for Kensington locks) - One padlock ring

Internal slots

The following table lists the internal slots of your OptiPlex Tower Plus 7020.

Table 7. Internal slots

Description	Values
M.2	- Three M.2 2230/2280 slots for solid-state drive - One M.2 2230 slot for WiFi and Bluetooth combo card **NOTE:** To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at www.dell.com/support.
SATA	- Three SATA 3.0 slots for 3.5-inch hard-disk drive - One SATA 2.0 slot for slim optical drive
Expansion	- One full-height Gen4 PCIe x16 slot - One full-height Gen3 PCIe x4 open-end slot - One full-height Gen3 PCIe x1 slot - One full-height PCI slot

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your OptiPlex Tower Plus 7020.

Table 8. Ethernet specifications

Description	Values
Model number	Intel WGi219LM
Transfer rate	10/100/1000 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) modules that are supported on your OptiPlex Tower Plus 7020.

Table 9. Wireless module specifications

Description	Option one	Option two
Model number	Intel AX211	Realtek RTL8852BE
Transfer rate	Up to 2400 Mbps	Up to 1201 Mbps
Frequency bands supported	2.4 GHz/5 GHz/6 GHz	2.4 GHz/5 GHz
Wireless standards	- Wi-Fi 802.11 a/b/g - Wi-Fi 4 (WiFi 802.11n) - Wi-Fi 5 (WiFi 802.11ac) - Wi-Fi 6E (WiFi 802.11ax)	- Wi-Fi 802.11 a/b/g - Wi-Fi 4 (WiFi 802.11n) - Wi-Fi 5 (WiFi 802.11ac) - Wi-Fi 6 (WiFi 802.11ax)
Encryption	64-bit/128-bit WEP - AES-CCMP - TKIP	64-bit/128-bit WEP - AES-CCMP - TKIP

Table 9. Wireless module specifications (continued)

Description	Option one	Option two
Bluetooth wireless card	Bluetooth 5.3 ⓘ **NOTE:** Computers shipped with Intel Wi-Fi 6E AX211 wireless card come with an external SMA antenna installed.	Bluetooth 5.3
	ⓘ **NOTE:** The version of the Bluetooth wireless card may vary depending on the operating system that is installed on your computer.	

Audio

The following table lists the audio specifications of your OptiPlex Tower Plus 7020.

Table 10. Audio specifications

Description	Values
Audio type	High Definition Audio
Audio controller	Realtek ALC3246-CG
Internal audio interface	High Definition Audio (HDA) inteface
External audio interface	● One Universal Audio port ● One retaskable line-in/line-out audio port

Storage

This section lists the storage options on your OptiPlex Tower Plus 7020.

Table 11. Storage specifications

Storage type	Interface type	Capacity
3.5-inch, 7200 RPM, hard-disk drive	SATA 3.0	Up to 2 TB
3.5-inch, 5400 RPM, hard-disk drive	SATA 3.0	4 TB
M.2 2230 solid-state drive, Class 25	PCIe Gen4 x4 NVMe	Up to 2 TB
M.2 2230 solid-state drive, Class 35	PCIe Gen4 x4 NVMe	Up to 1 TB
M.2 2230 Opal Self-Encrypting solid-state drive, Class 35	PCIe Gen4 x4 NVMe	256 GB
M.2 2280 solid-state drive, Class 40	PCIe Gen4 x4 NVMe	Up to 2 TB
M.2 2280 Opal Self-Encrypting solid-state drive, Class 40	PCIe Gen4 x4 NVMe	Up to 1 TB

Storage matrix

The following table lists the storage configurations supported on your OptiPlex Tower Plus 7020.

Table 12. Storage matrix

Storage	Slot				
	SSD0 (Primary M.2 PCIe for boot function)	SSD1	SSD2	SATA0	SATA1
One M.2 2230/2280 solid-state drive	Yes				
Two M.2 2230/2280 solid-state drives	Yes	Yes			
Three M.2 2230/2280 solid-state drives	Yes	Yes	Yes		
One M.2 2230/2280 solid-state drive + One 3.5-inch hard-disk drive	Yes			Yes	
One M.2 2230/2280 solid-state drive + Two 3.5-inch hard-disk drives	Yes			Yes	Yes
Two M.2 2230/2280 solid-state drives + One 3.5-inch hard-disk drive	Yes	Yes		Yes	
Two M.2 2230/2280 solid-state drives + Two 3.5-inch hard-disk drives	Yes	Yes		Yes	Yes
Two M.2 2230/2280 solid-state drives + One 3.5-inch hard-disk drive	Yes	Yes		Yes	
Three M.2 2230/2280 solid-state drives + Two 3.5-inch hard-disk drives	Yes	Yes	Yes	Yes	Yes

Redundant Array of Independent Disks (RAID)

For optimal performance when configuring drives as a RAID volume, Dell Technologies recommends drive models that are identical.

(i) **NOTE:** RAID is not supported on Intel Optane configurations.

RAID 0 (Striped, Performance) volumes benefit from higher performance when drives are matched because the data is split across multiple drives: any I/O operations with block sizes larger than the stripe size splits the I/O and become constrained by the slowest of the drives. For RAID 0 I/O operations where block sizes are smaller than the stripe size, whichever drive the I/O operation targets, determines the performance, which increases variability and results in inconsistent latencies. This variability is particularly pronounced for write operations, and it can be problematic for applications that are latency sensitive. One such example of this is any application that performs thousands of random writes per second in very small block sizes.

RAID 1 (Mirrored, Data Protection) volumes benefit from higher performance when drives are matched because the data is mirrored across multiple drives all I/O operations must be performed identically to both drives, thus variations in drive performance when the models are different result in the I/O operations completing only as fast as the slowest drive. While this does not suffer from the variable latency issue in small random I/O operations as with RAID 0 across heterogeneous drives, the impact is nonetheless large because the higher performing drive becomes limited in all I/O types. One of the worst examples of constrained performance here is when using unbuffered I/O. To ensure that that writes are fully committed to nonvolatile regions of the RAID volume, unbuffered I/O bypasses cache (for example by using the Force Unit Access bit in the NVMe protocol) and the I/O operation will not complete until all the drives in the RAID volume have completed the request to commit the data. This kind of I/O operation completely negates any advantage of a higher performing drive in the volume.

Care must be taken to match not only the drive vendor, capacity, and class, but also the specific model. Drives from the same vendor, with the same capacity, and even within the same class, can have different performance characteristics for certain types of I/O operations. Thus, matching by model ensures that the RAID volume consists of a homogeneous array of drives that deliver all the benefits of a RAID volume without incurring the additional penalties when one or more drives in the volume are lower performing.

OptiPlex Tower Plus 7020 supports RAID with more than one hard drive configuration.

Media-card reader

The following table lists the media cards that are supported on your OptiPlex Tower Plus 7020.

Table 13. Media-card reader specifications

Description	Values
Media-card type	One optional SD-card 4.0 slot
Media-cards supported	- Secure Digital (SD) - Secure Digital High Capacity (SDHC) - Secure Digital Extended Capacity (SDXC)
ⓘ **NOTE:** The maximum capacity supported by the media-card reader varies depending on the standard of the media card that is installed on your computer.	

Power ratings

The following table lists the power rating specifications of OptiPlex Tower Plus 7020.

Table 14. Power ratings

Description	Option one	Option two
Type	260 W internal power supply unit (PSU), 85% Efficient, 80 Plus Bronze	500 W internal power supply unit (PSU), 92% Efficient, 80 Plus Platinum
Input voltage	90 VAC to 264 VAC	90 VAC to 264 VAC
Input frequency	47 Hz to 63 Hz	47 Hz to 63 Hz
Input current (maximum)	4.20 A	7 A
Output current (continuous)	Operating: 12 VA: 18 A 12 VB: 16 A Standby: 12 VA: 1.50 A 12 VB: 3.30 A	Operating: 12 VA: 18 A 12 VB: 18 A 12 VC: 18 A Standby: 12 VA: 1.50 A 12 VB: 3.30 A 12 VC: 0 A

Table 14. Power ratings (continued)

Description		Option one	Option two
Rated output voltage		12 VA 12 VB	12 VA 12 VB 12 VC
Temperature range			
	Operating	5°C to 45°C (41°F to 113°F)	5°C to 45°C (41°F to 113°F)
	Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)

Power supply connector

The following table lists the Power supply connector specifications of your OptiPlex Tower Plus 7020.

Table 15. Power supply connector

Connector type	Description
260 W internal power supply unit (PSU), 85% Efficient, 80 Plus Bronze	- Two 4-pin connectors for processor - One 8-pin connector for system board
500 W internal power supply unit (PSU), 92% Efficient, 80 Plus Platinum	- Two 4-pin connectors for processor - One 8-pin connector for system board - One 6-pin and one 2+6-pin connectors for graphic card

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your OptiPlex Tower Plus 7020.

Table 16. GPU—Integrated

Controller	Memory size	Processor
Intel UHD Graphics 730	Shared system memory	14th Gen Intel Core i3
Intel UHD Graphics 770	Shared system memory	14th Gen Intel Core i5 vPro/i5K vPro 14th Gen Intel Core i7 vPro/i7K vPro 14th Gen Intel Core i9 vPro/i9K vPro

Video port resolution (GPU—Integrated)

Table 17. Video port resolution (GPU—Integrated)

Graphics card	Video ports	Maximum supported resolution
Intel UHD Graphics 730	- Three DisplayPort 1.4a (HBR2 support) ports - One optional port (HDMI 2.1/DisplayPort 1.4a (HBR3 support)/VGA/USB 3.2 Gen 2 (10 Gbps) Type-C with DisplayPort port)	**DisplayPort 1.4a (HBR2 support) port:** 4096 x 2304 @ 60 Hz **One optional port -** **HDMI 2.1 port:** Up to 4096 x 2160 @ 60 Hz

Table 17. Video port resolution (GPU—Integrated) (continued)

Graphics card	Video ports	Maximum supported resolution
		DisplayPort 1.4a (HBR3 support) port: Up to 5120 x 3200 @ 60 Hz **VGA port:** Up to 1920 x 1200 @ 60 Hz **USB 3.2 Gen 2 (10 Gbps) Type-C with DisplayPort port:** Up to 5120 x 3200 @ 60 Hz
Intel UHD Graphics 770	- Three DisplayPort 1.4a (HBR2 support) ports - One optional port (HDMI 2.1/DisplayPort 1.4a (HBR3 support)/VGA/USB 3.2 Gen 2 (10 Gbps) Type-C with DisplayPort port)	**DisplayPort 1.4a (HBR2 support) port:** 4096 x 2304 @ 60 Hz **One optional port -** **HDMI 2.1 port:** Up to 4096 x 2160 @ 60 Hz **DisplayPort 1.4a (HBR3 support) port:** Up to 5120 x 3200 @ 60 Hz **VGA port:** Up to 1920 x 1200 @ 60 Hz **USB 3.2 Gen 2 (10 Gbps) Type-C with DisplayPort port:** Up to 5120 x 3200 @ 60 Hz

External display support (GPU—Integrated)

Table 18. External display support (GPU—Integrated)

Graphics card	Supported external displays
Intel UHD Graphics 730/770	- Without MST - 3 - With MST - 4
Intel UHD Graphics 730/770 + optional module	4

(i) **NOTE:** DisplayPort Multi-Stream Transport (MST) allows you to daisy chain monitors that have DisplayPort 1.2 and above ports and MST support. For more information about using DisplayPort Multi-Stream Transport, see www.dell.com/support.

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your OptiPlex Tower Plus 7020.

Table 19. GPU—Discrete

Controller	Memory size	Memory type
NVIDIA GeForce RTX 4060	8 GB	GDDR6
AMD Radeon RX 6300	2 GB	GDDR6
AMD Radeon RX 6500	4 GB	GDDR6

Video port resolution (GPU—Discrete)

The following table lists the video port resolution for your OptiPlex Tower Plus 7020.

Table 20. Video port resolution (GPU—Discrete)

Graphics card	Video ports	Maximum supported resolution
NVIDIA GeForce RTX 4060	- Three DisplayPort 1.4a (HBR2 support) ports (Display Port 1.2 Certified. DisplayPort 1.3/1.4 ready.) - One HDMI 2.1a port	**DisplayPort 1.4a port:** 7680 x 4320 @ 60 Hz (requires two DisplayPort 1.4a links and DSC compression) **HDMI 2.1a port:** 7680 x 4320 YUV420 or DSC @ 60 Hz
AMD Radeon RX 6300	Two DisplayPort 1.4a (HBR2 support) ports	For one-port configuration - - With DSC enabled - 8K @ 60 Hz. - Without DSC enabled - 5120 x 2880 @ 60 Hz
AMD Radeon RX 6500	Two DisplayPort 1.4a (HBR2 support) ports	For one-port configuration - - With DSC enabled - 8K @ 60 Hz - Without DSC enabled - 5120 x 2880 @ 60 Hz

External display support (GPU—Discrete)

Table 21. External display support (GPU—Discrete)

Graphics Card	Video ports	Number of supported external displays	DisplayPort Multi-Stream Transport (MST) support
NVIDIA GeForce RTX 4060	- Three DisplayPort 1.4a (HBR2 support) ports (Display Port 1.2 Certified. DisplayPort 1.3/1.4 ready.) - One HDMI 2.1a port	4	Supported
AMD Radeon RX 6300	Two DisplayPort 1.4a (HBR2 support) ports	2	Supported
AMD Radeon RX 6500	Two DisplayPort 1.4a (HBR2 support) ports	2	Supported

> (i) **NOTE:** DisplayPort Multi-Stream Transport (MST) allows you to daisy chain monitors that have DisplayPort 1.2 and above ports and MST support. For more information about using DisplayPort Multi-Stream Transport, see www.dell.com/support.

Hardware security

The following table lists the hardware security of your OptiPlex Tower Plus 7020.

Table 22. Hardware security

Hardware security
Chassis intrusion switch
Chassis lock slot support
China TPM

Table 22. Hardware security (continued)

Hardware security
Intel Authenticate
Intel Secure Boot
Kensington security-cable slot
Local hard drive data wipe through BIOS (Secure Erase)
Lockable cable covers
Microsoft 10 Device Guard and Credential Guard (Enterprise SKU)
Microsoft Windows Bitlocker
Padlock ring
SafeBIOS: includes Dell Off-host BIOS Verification, BIOS Resilience, BIOS Recovery, and additional BIOS Controls
SafeID including Trusted Platform Module (TPM) 2.0
Self-encrypting storage drives (Opal, FIPS)
Smart card keyboard (FIPS)
Supply chain tamper alerts
Trusted Platform Module TPM 2.0

Environmental

The following table lists the environmental specifications of your OptiPlex Tower Plus 7020.

Table 23. Environmental

Feature	Values
Recyclable packaging	Yes
Vertical orientation packaging support	No
Multi-Pack packaging	Yes (optional)

(i) **NOTE:** Wood-based fiber packaging contains a minimum of 35% recycled content by total weight of wood-based fiber. Packaging that contains without wood-based fiber can be claimed as Not Applicable. The anticipated required criteria for EPEAT 2018.

Regulatory compliance

The following table lists the regulatory compliance of your OptiPlex Tower Plus 7020.

Table 24. Regulatory compliance

Regulatory compliance
Product Safety, EMC and Environmental Datasheets
Dell Regulatory Compliance Home Page
Responsible Business Alliance policy

Operating and storage environment

This table lists the operating and storage specifications of your OptiPlex Tower Plus 7020.

Airborne contaminant level: G1 as defined by ISA-S71.04-1985

Table 25. Computer environment

Description	Operating	Storage
Temperature range	10°C to 35°C (50°F to 95°F)	-40°C to 70°C (-40°F to 158°F)
Relative humidity (maximum)	20% to 80% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.26 GRMS	1.37 GRMS
Shock (maximum)	40 G†	105 G†
Altitude range	-15.2 m to 3048 m (-49.87 ft to 10000 ft)	-15.2 m to 10668 m (-49.87 ft to 35000 ft)

⚠️ **CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.**

* Measured using a random vibration spectrum that simulates the user environment.

† Measured using a 2 ms half-sine pulse.

Engineering specifications

Physical system dimensions

The following table provides the physical dimensions of your OptiPlex Tower Plus 7020.

ⓘ **NOTE:** System weight and shipping weight are based on a typical configuration and may vary based on your system configuration. A typical configuration includes integrated graphics, one hard drive, and one optical drive.

Table 26. Physical system dimensions

Feature	Values
Chassis volume	18.70 liters
Chassis Weight	● Minimum: 5.93 kg (13.07 lb) ● Maximum: 9.63 kg (21.24 lb)
Chassis dimensions	
Height	367.00 mm (14.45 in.)
Width	169.00 mm (6.65 in.)
Depth	300.80 mm (11.84 in.)
Shipping Weight (includes packaging materials)	12.11 kg (26.69 lb)
Packaging dimensions	
Height	353.00 mm (13.90 in.)
Width	494.00 mm (19.44 in.)
Depth	396.00 mm (15.59 in.)

Add-in card dimensions

System board connector maximum add-in card allowable dimensions

Table 27. System board connector maximum add-in card allowable dimensions

Feature	Values
PCI connector	1
Voltage	3.3 V/5 V/12 V/-12 V
Height	110.99 mm (4.37 in.)
Length	266.70 mm (10.50 in.)
Maximum wattage	25 W
PCIe x16 connector	1

Table 27. System board connector maximum add-in card allowable dimensions (continued)

Feature	Values
Voltage	3.3 V/12 V
Height	110.99 mm (4.37 in.)
Length	266.70 mm (10.50 in.)
Maximum wattage	75 W
PCIe x4 connector	1
Voltage	3.3 V/12 V
Height	110.99 mm (4.37 in.)
Length	167.64 mm (6.60 in.)
Maximum wattage	25 W
PCIe x1 connector	1
Voltage	3.3 V/12 V
Height	110.99 mm (4.37 in.)
Length	114.30 mm (4.50 in.)
Maximum wattage	10 W

Table 28. M.2 2230 slot for Wi-Fi card

Feature	Values
Voltage	3.3 V
Width	22.00 mm (0.86 in.)
Length	30.00 mm (1.18 in.)
Thickness	3.65 mm (0.14 in.)
Maximum wattage	6.6 W

Table 29. M.2 2280 slot for solid-state drive

Feature	Values
Voltage	3.3 V
Width	22.00 mm (0.86 in.)
Length	80.00 mm (3.14 in.)
Thickness	3.80 mm (0.15 in.)
Maximum Wattage	8.25 W

Table 30. M.2 2230 slot for solid-state drive

Feature	Values
Voltage	3.3 V
Width	22.00 mm (0.86 in.)
Length	30.00 mm (1.18 in.)

Feature	Values
Thickness	3.65 mm (0.14 in.)
Maximum wattage	6.6 W

PCIe lane details

Table 31. PCIe lane details

Expansion Slot Type	Voltage	Maximum Height	Maximum Length	Maximum Wattage	Cards supported
PCI connector	3.3 V/5 V/12 V/-12 V	110.99 mm (4.37 in.)	266.70 mm (10.50 in.)	25 W	Yes
PCIe x16 connector	3.3 V/12 V	110.99 mm (4.37 in.)	266.70 mm (10.50 in.)	75 W	Yes
PCIe x4 connector	3.3 V/12 V	110.99 mm (4.38 in.)	167.64 mm (6.60 in.)	25 W	Yes
PCIe x1 connector	3.3 V/12 V	110.99 mm (4.37 in.)	114.30 mm (4.50 in.)	10 W	Yes

Total Add-in-Card does not exceed 75 W/125 W/150 W depending on PSU option.

Dust filter

The following table lists the dust filter specifications of your OptiPlex Tower Plus 7020.

Table 32. Dust filter

Feature	Values
Type	0.20 mm (0.008 in.)
Mesh count	2540 mm (100.00 in.)
Weave	PW
Silk diameter	0.05 mm (0.002 in.)
Open area	61 %
Thickness	0.10 mm (0.004 in.)
Remark	PET

PCIe add-in cards

USB Type-C 3.2 Gen 2 (10 Gbps) PCIe Card, Full Height

Table 33. USB Type-C 3.2 Gen 2 (10 Gbps) PCIe Card, Full Height

Feature	Values
Bus	PCI Express Spec 3.0 x 2 (compliant with x4/x8/x16 slot)

Table 33. USB Type-C 3.2 Gen 2 (10 Gbps) PCIe Card, Full Height (continued)

Feature	Values
Controller	● PCI Express USB 3.2 Host Controller ● Asmedia ASM3142
USB standard	eXtensible Host Controller Interface (xHCI) Rev1.1
IRQ and IO	Assigned by system
USB Communication	
Host interface	● Universal Serial Bus 3.2 ● Universal Serial Bus 3.1 ● Universal Serial Bus 3.0 ● Universal Serial Bus 2.0 ● Universal Serial Bus 1.1
Speed	● SuperSpeed+ (10 Gbps) ● SuperSpeed (5 Gbps) ● High Speed (480 Mbps) ● Full Speed (12 Mbps) ● Low Speed (1.5 Mbps)
Number of ports	Two ports (i) **NOTE:** One port supports data only, and the other port supports full feature.
USB connector	USB 3.2 Type-C port (Downstream facing port)
Protection	● +/-15KV IEC61000-4-2 Air Gap Discharge ● +/-8KV IEC61000-4-2 Contact Discharge
Audio and Video	
Input interface	● Standard DisplayPort Female ● DisplayPort 1.2/1.1
Output interface	USB Type-C port
Audio	Supported (Audio pass-through)
Power	
Power source	PCI Express Bus Power
Output power capacity	USB Type-C Port: USB Bus Power:+5 VDC/1.5 A/each port (i) **NOTE:** Total power output capacity is limited by the system power supply.
Over current protection	USB Type-C Port: +5 VDC/1.5 A/each port/power switch
Power consumption	3.0 W @ 3.3 V (board only without power output to USB device)
Operating System	
Supported operating system	● Windows 8.1 ● Windows 10 (x86/x64)
Environment	
Operating temperature	0°C to 60°C (32°F to 140°F)
Operating humidity	5% to 95% RH
Storage temperature	-20°C to 70°C (-4°F to 158°F)

Table 33. USB Type-C 3.2 Gen 2 (10 Gbps) PCIe Card, Full Height (continued)

Feature	Values
Standards and Certifications	
EMC	- CE - FCC - VCCI - BSMI
Green	- RoHS - CRoHS - WEEE

Serial/Parallel Port Card, Full Height

Table 34. Serial/Parallel Port Card, Full Height

Feature	Values
Interface	- RS-232 - IEEE1284
Data rates	50 bps ~115.2 Kbps (serial) - maximum 1.8 Mbps (parallel)
Controller details	
Controller	SUNIX SUN2212 (16C950 UART compatible)
Controller bus architecture	- PCI Express 2.0 - Single-Lane (x1)
Driver support	Windows 10 (64-bit)
Half-height serial add-in dongle	Optional
Environment	
Operating temperature	0°C to 60°C (32°F–140°F)
Operating humidity	5% to 95% RH
Storage temperature	-20°C to 85°C (-4°F to 185°F)

i226 PCIe x1 2.5 GbE NIC Card

The following table lists the i226 PCIe x1 2.5 GbE NIC Card specifications.

Table 35. i226 PCIe x1 2.5 GbE NIC Card specifications

Feature	Values
RJ45 connection	Compatibility with cable lengths up to 100 mts using - CAT5e - CAT6 - CAT6A
Interface	PCIe
Data rate supported per port	2.5/1 GbE and 100/10 Mbps
Controller details	
Controller	Intel Ethernet Controller i226

Table 35. i226 PCIe x1 2.5 GbE NIC Card specifications (continued)

Feature	Values
Controller bus architecture	PCI Express 3.1 x1
Driver support	N/A
Bracket	Full-height bracket installed. Low-profile bracket in package.
Environment	
Operating temperature	0°C to 55°C (32°F to 131°F)
Operating humidity	Maximum: 90% non-condensing relative humidity at 35°C
Storage temperature	-40°C to 70°C (-40°F to 158°F)

Powered Serial PCIe card

Table 36. Powered Serial PCIe card

Feature	Values
Interface	RS-232
Bus	● PCI Express 2.0 ● Single-lane (x1)
Controller	SUNIX SUN2410 (16C950 UART compatible)
IRQ and IO	Assigned by system
Serial Communication	
Interface	RS-232
Number of ports	Four ports
FIFO	128-byte hardware
Signal	● DCD ● TxD ● RxD ● RTS ● CTS ● DTR ● GND ● RI
Baud rate	50 bps~115.2 Kbps
Stop bit	● 1 ● 1.5 ● 2
Parity	● Even ● Odd ● None ● Mark ● Space
Flow control	● None ● Xon ● Xoff ● RTS/CTS

Table 36. Powered Serial PCIe card (continued)

Feature	Values
Protection	+/-15KV ESD protection for each signal Human Body Model (HBM) +/–15KV IEC61000-4-2 Air Gap Discharge +/–8KV IEC61000-4-2 Contact Discharge - DELL M6403_A09 Direct Pin Injection
Printed circuit board connector	DB44 Female
Power	
Power source	PCI Express Bus Power
Output power capacity	USB Type-C Port - Power delivery +5 VDC/1.5 A/each port ⓘ **NOTE:** Total power output capacity is limited by the system power supply.
Over current protection	USB Type-C port - +5 VDC/1.5 A/each port/power switch
Power consumption	3.0 W @ 3.3 V (board only without power output to USB device)
Operating System	
Supported operating system	- Windows 7 - Windows 8.1 - Windows 10 - Ubuntu
Environment	
Operating temperature	0°C to 60°C (32°F–140°F)
Operating humidity	5% to 95% RH
Storage temperature	-20°C to 70°C (-4°F to 158°F)
Standards and Certifications	
EMC	- Europe - CE, EN55022 Class B, EN55024, EN61000-3-2, and EN61000-3-3 - US - FCC Part 15 Class B - Japan - VCCI - AS/NZS - C-Tick (CISPR22)
Green	- RoHS - CRoHS - WEEE

USB 3.2 Gen 2 PCIe Card, Full Height

The following table lists the USB 3.2 Gen 2 PCIe Card, Full Height specifications.

Table 37. USB 3.2 Gen 2 PCIe Card, Full Height specifications

Feature	Values
Interface	Universal Serial Bus 3.1/3.0/2.0/1.1
Speed	- Super Speed+ (10 Gpbs) - Super Speed (5 Gpbs) - High Speed (480 Mbps) - Full Speed (12 Mbps) - Low Speed (1.5 Mbps)

Feature	Values
Number of ports	Two
Printed circuit board connector	USB 3.1 USB Type A port
Controller details	
Controller	PCI Express USB 3.1 Host controller, Asmedia ASM 3142
Controller bus architecture	PCI Express Spec 3.0, Dual Lane (x 2)
USB standard	eXtensible Host Controller Interface (xHCI) Rev 1.1
Power	
Source	PCIe Bus Power
Output Capacity	USB Type-A Port: +5 VDC/Maximum 0.9 A/each port ⓘ **NOTE:** Total power output capacity is limited by system power supply.
Over Current Protection	USB Type-A Port: +5 VDC/1.5 A/each port/Power switch
Power Consumption	1.1 W @ 3.3 V (board only without power output to USB device)
Environment	
Operating temperature	0°C to 60°C (32°F to 140°F)
Operating humidity	5 to 95% RH
Storage temperature	-20°C to 70°C (-4°F to 158°F)

Powered USB PCIe Card (Full Height, 1x 24V, 2x 12V)

Table 38. Powered USB PCIe Card (Full Height, 1x 24V, 2x 12V)

Feature	Values
Bus	PCI Express Spec 1.1, Single Lane (x1)
Controller	● PCI Express USB 3.1 Host Controller ● Asmedia ASM3142
USB standard	● Enhanced Host Controller Interface (EHCI) ● Open Host Controller Interface (OHCI)
IRQ and IO	Assigned by system
USB Communication	
Interface	Universal Serial Bus 2.0
Speed	● High Speed (480 Mbps) ● Full Speed (12 Mbps) ● Low Speed (1.5 Mbps)
Number of ports	Three ports
PCB connector	Powered USB Connector
Protection	● +/-15KV ESD protection for each signal Human Body Model (HBM) ● +/-15KV IEC61000-4-2 Air Gap Discharge ● +/-8KV IEC61000-4-2 Contact Discharge ● DELL M6403_A09 Direct Pin Injection

Table 38. Powered USB PCIe Card (Full Height, 1x 24V, 2x 12V) (continued)

Feature	Values
Power	
Power source	+12VDC / PCIe GFx power connector 2x3 Type
Output power capacity	Standard USB 2.0 Port: +5 VDC / Maximum 0.5 A / each port Powered USB Port: ● + 24 VDC / Maximum 3 A per each port ● +12 VDC / Maximum 3 A per each port ⓘ **NOTE:** Total power output capacity is limited by the system power supply.
Over current protection	Standard USB 2.0 Port: +5 VDC / Maximum 2.0 A / 3-each port Powered USB Port: ● + 24 VDC/3 A @30 V PTC fuse per each port ● +12 VDC/3 A @16 V PTC fuse per each port
Power consumption	1.1 W @ 3.3 V (board only without power output to USB device)
Driver Support	
Supported Driver	● Windows 10 (x86/x64) ● Windows 11 (x86/x64) ● 2012 R2 /2016 /2019 (X86/X64) and above ● Linux 2.6 and above
Environment	
Operating temperature	0°C to 60°C (32°F to 140°F)
Operating humidity	5% to 95% RH
Storage temperature	-20°C to 70°C (-4°F to 158°F)
Standards and Certifications	
EMC	● CE ● FCC ● VCCI ● BSMI
Green	● RoHS ● WEEE

Thunderbolt PCIe card

The following table lists the Thunderbolt PCIe card specifications.

Table 39. Thunderbolt PCIe card

Features	Values
Design	LP HL PWA with PCIe 4.0 x4 Full height Bracket option
Number of ports	● 2x Type-C I/O ● 2x DP input ● GPIO (requires side-band cable)
Feature	● 40 Gb/s (2x 20) with TB4 and USB 4.0

Table 39. Thunderbolt PCIe card (continued)

Features	Values
	- Auto switch/shift to Legacy TB/USB (support backwards compatibility) - DP1.4a HBR3 Out (DP-MF and DP-alt) two streams - DP Tunnel 32 Gb/s 2 Streams, USB3 Tunnel 10 Gb/s - Hub Support, TB Networking, Universal Cable
Power	- Upper Port - 5 V@3 A (TB + Power Delivery Icon) - Lower Port - 5 V@1.5 A (TB Icon Only)
Drivers	- Windows 10 and Windows 11 - Red Hat Enterprise Linux - Ubuntu
Cables	1x Sideband cable (system to TBT4 card) 2x DP cables x24 cm Graphics loopback (DP connector from GFX card to TBT4 card)
Manuals	- Product Specification Sheet and User Guide - Online Post Drivers and Docs
Certificates	- Intel Thunderbolt Validation - WHQL - USB 4.0 40 Gbps
Specifications	- Dell standard reliability - Behavior - Materials

PS/2 and Serial port card, Full Height

The following table lists the PS/2 and Serial port card, Full Height specifications.

Table 40. PS/2 and Serial port card, Full Height specifications

Feature	Values
Interface	UART
Data rates	250 kbps / 235 kbps
Controller details	
Controller	Microchip DEC1515
Controller bus architecture	PCIe
Driver support	N/A
Half-height serial add-in dongle	N/A
Environment	
Operating temperature	0°C to 70°C (32°F to 158°F) / -40°C to 85°C (-40°F to 185°F)
Operating humidity	60% RH
Storage temperature	-65°C to 150°C (-85°F to 302°F)

Ethernet

Intel Ethernet Connection WGi219-LM

The following table lists the WGi219-LM specifications.

Table 41. Intel Ethernet Connection WGi219-LM specifications

Feature	Values
External connector type	RJ45
Data rate	10/100/1000 Mbps
Controller Details	
Controller bus architecture	PCI Express base specification revision 1.1
Integrated memory	Yes
Data transfer mode	Yes (Bus-Master DMA)
Power consumption (Full operation per data rate connection speed)	542 mW (Max)
Power consumption (Standby operation)	76 mW (Max)
IEEE standards compliance	802.3
Hardware certifications	N/A
Boot ROM support	EEPROM (Located in SPI)
Network Transfer Mode	
Network transfer rate	10 Mb (full/half-duplex)
10BASE-T (full-duplex) 20 Mbps	100 Mb (full/half-duplex)
100BASE-TX (half-duplex) 100 Mbps	1000 Mb (full-duplex)
Environmental	
Operating temperature range	0°C–85°C (32°F–185°F)
Operating humidity	20% to 80% (non condensing)
Operating system driver Support	- Windows 11 (x64) - Ubuntu - Neokylin
Manageability	- Wakeup On LAN - PXE 2.1
Management capabilities alerting	Optional Intel Standard Manageability (must be made at time of purchase).

This term does not connote an actual operating speed of 1 Gb/sec. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

Intel Ethernet Connection i226

The following table lists the i226 specifications.

Table 42. Intel Ethernet Connection i226 specifications

Feature	Values
External connector type	RJ45
Data rate	10/100/1000/2500 Mbps
LED indicators	● Link - Solid ● Activity - Blinking
LED color	● Green - 2.5 Gbps ● Yellow - 1 Gbps ● LED off - 100 Mbps or 10 Mbps
Adapter Features	
Bus Type/Bus Width	PCI Express 3.1 x 1
Interrupt levels	INTA, MSI, MSI-X
Hardware certifications	FCC B, UL, CE, VCCI, BSMI, CTICK, KCC, EEE
Controller	Intel Ethernet Controller I226
Bracket	Full-height bracket installed. Low-profile bracket included in the package
Power Consumption	
Link Speed/Traffic	Typical power
10 Mbps	0.5 W
100 Mbps	0.6 W
1000 Mbps	1 W
2500 Mbps	1.9 W
Environmental	
Operating temperature range	0°C–55°C (32°F–131°F)
Storage temperature range	-40°C–70°C (-40°F–158°F)
Storage humidity	Maximum 90% non-condensing relative humidity at 35°C
Physical Dimensions	
Dimensions	68.70 mm x 65.30 mm

Wireless module

Intel AX211, 2x2 MIMO, 2400 Mbps, 2.4/5/6 GHz, Wi-Fi 6E (WiFi 802.11ax), Bluetooth 5.3

The following table lists the Intel AX211 specifications.

> (i) **NOTE:** Wi-Fi 6 is supported in regions where Wi-Fi 6E is unavailable.

Table 43. Intel AX211 specifications

Description	Specifications
Host interface	CNVio
Network standard	IEEE 802.11a/b/g/n/ac/ax, 160 MHz channel use, MU-MIMO, new 6 GHz band
Wi-Fi Alliance certifications	Wi-Fi CERTIFIED 6, Wi-Fi CERTIFIED a/b/g/n/ac,WMM, WMM-Power Save, WPA2, WPA3, WPS, PMF,Wi-Fi Direct, Wi-Fi Agile Multiband (i) **NOTE:** Other names and brands may be claimed as the property of others.
Operating frequency bands	2.4 GHz 5 GHz 6 GHz
Data rate	2.4 GHz 40M: Up to 574 Mbps 5/6 GHz 80M: Up to 1.2 Gbps 5/6 GHz 160M: Up to 2.4 Gbps
Power consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Security methods	- WPA2 Personal and Enterprise - WPA3
Authentication protocols	802.1X EAP-TLS - EAP-TTLS/MSCHAPv2 - PEAPv0 -MSCHAPv2 (EAP-SIM, EAP-AKA, EAP-AKA)
Encryption	64-bit and 128-bit WEP - TKIP 128-bit AES-CCMP 256-bit AES-GCMP
Product safety	- UL - C-UL - CB (IEC60950-1)
Management capabilities alerting	Support for Intel AMT
Government compliance	- FIPS 140-2 - FISMA
Client utility	Intel PRO/Set wireless software v22 and later
Antenna diversity	Supported
Radio On/Off	Supported
Roaming	Support seamless roaming between access points
Wake on wireless	Supported
Wireless display	Native Miracast support by Windows
Wireless PAN standard	- Dual Mode Bluetooth 5.3 - BLE
Bluetooth data rates	Up to 3 Mbps
Bluetooth operating frequency bands	2.4 GHz
Bluetooth profiles supported	Support for Microsoft Inbox Bluetooth Wireless Card profiles in Windows

Table 43. Intel AX211 specifications (continued)

Description	Specifications
Bluetooth data encryption	128-bit encryption
Bluetooth output power	Power class 1
Operating temperature	0°C to + 50°C (Full performance at shield temperatures up to 80°C)
Storage temperature	-40°C to +70°C
Humidity	Up to 90% RH non-condensing (at temperatures of 25°C to 35°C)

Realtek RTL8852BE, 1x1, Wi-Fi 5 (WiFi 802.11ac), Bluetooth 5.3

The following table lists the Realtek RTL8852BE specifications.

Table 44. Realtek RTL8852BE specifications

Host interface	- Wi-Fi - PCIe - Bluetooth - USB
Network standard	IEEE 802.11a/b/g/n/ac, MU-MIMO
Wi-Fi Alliance certifications	- Wi-Fi certified a/b/g/n/ac - WMM - WPA - WPA2 - Wi-Fi Direct (Windows only)
Operating frequency bands	2.4 Ghz 5 Ghz
Data rate	2.4 GHz 40M: Up to 150 Mbps 5 GHz 80M: Up to 433 Mbps
Power consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Authentication	- Open - Shared - WPA - WPA-PSK - WPA2 - WPA2-PSK
Client utility	Native Wi-Fi and Bluetooth Microsoft UI support
Software support	- Microsoft WHQL certified for Windows - Linux
Radio On/Off	Supported
Roaming	Support seamless roaming between access points
Wake on wireless	Supported
Wireless display	Native Miracast support by Windows
Wireless PAN standard	- Dual Mode Bluetooth 5.0 - BLE
Bluetooth data rates	Up to 3 Mbps

Table 44. Realtek RTL8852BE specifications (continued)

Bluetooth operating frequency bands	2.4 GHz
Bluetooth profiles supported	Support for Microsoft Inbox Bluetooth profiles in Windows
Bluetooth data encryption	128-bit encryption
Operating temperature	0°C to + 70°C
Storage temperature	-40°C to +85°C

GPU—Integrated

Intel UHD Graphics 730

Table 45. Intel UHD Graphics 730 specifications

Intel UHD Graphics 730	
Bus Type	Integrated
Memory type	Shared memory
Graphics Level	Intel core i3/i5: GT1 (UHD)
Overlay Planes	Yes
Operating Systems Graphics/ Video API Support	DirectX 12, OpenGL (4.6)
Supports maximum resolution	● On board DP1.4a (HBR2)(4096 x 2304 @60 Hz)
Maximum vertical refresh rate	Up to 60 Hz depending on resolution
External ports	One Optional video port (HDMI 2.1/Displayport 1.4a (HBR3)/VGA/USB Type-C with DisplayPort Alt mode) ⓘ **NOTE:** Maximum resolution ● **HDMI 2.1**: up to 4096 x 2160 @60Hz ● **DisplayPort 1.4a (HBR3)**: up to 5120 x 3200 @60Hz ● **VGA**: up to 1920 x 1200 @60Hz
Multiple display support	Up to 4 displays via DisplayPort Multi-Streaming Technology (MST)

Intel UHD Graphics 770

Table 46. Intel UHD Graphics 770 specifications

Intel UHD Graphics 770	
Bus Type	Integrated
Memory type	Shared memory
Graphics Level	Intel core i5/i7/i9: GT1 (UHD)
Overlay Planes	Yes
Operating Systems Graphics/ Video API Support	DirectX 12, OpenGL (4.6)
Supports maximum resolution	● On board DP1.4a (HBR2)(4096 x 2304 @ 60Hz)
Maximum vertical refresh rate	Up to 60 Hz depending on resolution

Table 46. Intel UHD Graphics 770 specifications (continued)

Intel UHD Graphics 770	
External ports	One Optional video port (HDMI 2.1/Displayport 1.4a (HBR3)/VGA/USB Type-C with DisplayPort Alt mode) ⓘ **NOTE:** Maximum resolution • **HDMI 2.1**: up to 4096 x 2160 @60Hz • **DisplayPort 1.4a (HBR3)**: up to 5120 x 3200 @60Hz • **VGA**: up to 1920 x 1200 @60Hz
Multiple display support	Up to 4 displays via DisplayPort Multi-Streaming Technology (MST)

GPU—Discrete

NVIDIA GeForce RTX 4060, 8 GB GDDR6

The following table lists the NVIDIA GeForce RTX 4060 specifications.

Table 47. NVIDIA GeForce RTX 4060 specifications

Feature	Values
Dedicated graphics memory	8 GB, GDDR6
Memory bus	128-bit
Memory configuration	Hynix (H56G42AS6DX014)
Width	115.15 mm
Approximate wattage	TGP: 115 W
Base clock	1830 MHz
Boost clock	2460 MHz
NVIDIA CUDA cores	N/A
G-Sync / Free sync ready	G-Sync
Supported APIs	DirectX 12
Maximum resolution	7680 x 4320 @ 120Hz (Requires 2 DisplayPort 1.4a links and DSC compression)
HDMI support	HDMI 2.1a
HDCP support	HDCP 2.3
I/O ports	• Three DisplayPort 1.4a ports • One HDMI 2.1a port

AMD Radeon RX6300, 2 GB, GDDR6

The following table lists the AMD Radeon RX6300 specifications.

Table 48. AMD Radeon RX6300 specifications

Feature	Values
Dedicated graphics memory	2 GB, GDDR6

Table 48. AMD Radeon RX6300 specifications (continued)

Feature	Values
Memory bus	32-bit
Memory config	● Samsung: K4ZAF325BC-SC16, DPN MGG9J ● HYNIX: H56G42AS4DX014 , DPN MFN30
Width	Single slot
Approximate wattage	TBP: 32 W
Base clock	1174 MHz
Boost clock	2040 MHz
NVIDIA CUDA cores	N/A
G-Sync / Freesync ready	Freesync (AMD Interlock)
Supported APIs	DirectX 12 (AMD Interlock)
Maximum resolution	8K 120Hz, 8K@60Hz is the maximum resolution for one port config.
HDMI support	No
HDCP support	Yes
I/O ports	2 DisplayPort 1.4a ports

AMD Radeon RX6500, 4 GB, GDDR6

The following table lists the AMD Radeon RX6500 specifications.

Table 49. AMD Radeon RX6500 specifications

Feature	Values
Dedicated graphics memory	4 GB, GDDR6
Memory bus	64-bit
Memory config	● Samsung: K4ZAF325BC-SC16, DPN MGG9J ● HYNIX: H56G42AS4DX014 , DPN MFN30
Width	Single slot
Approximate wattage	TBP: 51 W
Base clock	1789 MHz
Boost clock	2268 MHz
NVIDIA CUDA cores	N/A
G-Sync / Freesync ready	Freesync (AMD Interlock)
Supported APIs	DirectX 12 (AMD Interlock)
Maximum resolution	8K 120Hz, 8K@60Hz is the maximum resolution for one port config.
HDMI support	No
HDCP support	Yes
I/O ports	2 DisplayPort 1.4a ports

GPU and PSU matrix

The following table provides the GPU and PSU matrix of your OptiPlex Tower Plus 7020.

Table 50. GPU and PSU matrix

Graphics card	Card length	Weight (kg)	Power connector	I/O connector	Single/Dual wide	PSU
AMD Radeon RX6300	6.60 in.	0.138	N/A	Two DisplayPort 1.4a ports	Single	260 W
AMD Radeon RX6500	6.60 in.	0.140	N/A	Two DisplayPort 1.4a ports	Single	260 W
NVIDIA GeForce RTX 4060	5.69 in.	0.352	N/A	● Three DisplayPort 1.4a ports (Display Port 1.2 Certified. DP 1.3/1.4 Ready) ● One HDMI 2.1a port	Dual	500 W

Hard-disk drive Preloaded bracket matrix

The following table lists the hard-disk drive preloaded bracket information of your OptiPlex Tower Plus 7020.

Table 51. Hard-disk drive Preloaded bracket matrix

Hard-disk drive Preloaded bracket	Available
3.5 in. Caddy/Bracket	Yes
2.5 in. Caddy/Bracket	No

Storage

3.5-inch, 4 TB, 5400 RPM, SATA, HDD

Table 52. 3.5-inch, 4 TB, 5400 RPM, SATA, HDD specifications

Capacity	4 TB
Speed	5400 RPM
Height (approximate)	26.10 mm (1.03 in.)
Width (approximate)	147.00 mm (5.79 in.)
Depth (approximate)	101.60 mm (4.00 in.)
Interface	SATA 3.0
Speed (maximum)	Up to 6 Gbps
MTBF	550,000 hours
Logical blocks	7,814,037,168
Power source	
Power consumption (reference only)	● Idle: 5 W ● Active: 10 W

Table 52. 3.5-inch, 4 TB, 5400 RPM, SATA, HDD specifications (continued)

Environmental operating conditions (non-condensing)	
Temperature range	5°C to 60°C
Relative humidity range	5% to 90%
Op shock	65G @2ms
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 65°C
Relative humidity range	5% to 95%

3.5-inch, 1 TB, 7200 RPM, SATA, HDD

Table 53. 3.5-inch, 1 TB, 7200 RPM, SATA, HDD specifications

Capacity	1 TB
Speed	7200 RPM
Height (approximate)	26.10 mm　(1.03 in.)
Width (approximate)	147.00 mm　(5.79 in.)
Depth (approximate)	101.60 mm (4.00 in.)
Interface	SATA 3.0
Speed (maximum)	Up to 6 Gbps
MTBF	550,000 hours
Logical blocks	1,953,525,168
Power source	
Power consumption (reference only)	● Idle: 5 W ● Active: 10 W
Environmental operating conditions (non-condensing)	
Temperature range	5°C to 60°C
Relative humidity range	5% to 90%
Op shock	65G @2ms
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 65°C
Relative humidity range	5% to 95%

3.5-inch, 2 TB, 7200 RPM, SATA, HDD

Table 54. 3.5-inch, 2 TB, 7200 RPM, SATA, HDD specifications

Capacity	2 TB
Speed	7200 RPM
Height (approximate)	25.40 mm (1.00 in.)
Width (approximate)	147.00 mm (5.79 in.)
Depth (approximate)	101.60 mm (4.00 in.)

Table 54. 3.5-inch, 2 TB, 7200 RPM, SATA, HDD specifications (continued)

Interface	SATA 3.0
Speed (maximum)	Up to 6 Gbps
MTBF	550,000 hours
Logical blocks	3,90,70,29,168
Power source	
Power consumption (reference only)	• Idle: 5 W • Active: 10 W
Environmental operating conditions (non-condensing)	
Temperature range	5°C to 60°C
Relative humidity range	5% to 90%
Op shock	65G @2ms
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 65°C
Relative humidity range	5% to 95%

M.2 2230, 512 GB, PCIe NVMe, Class 25 SSD

The following table lists the M.2 2230, 512 GB SSD specifications.

Table 55. 512 GB SSD specifications

Capacity	512 GB
Height (approximate)	3.50 mm （0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 3.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 1 TB, PCIe NVMe, Class 25 SSD

The following table lists the M.2 2230, 1 TB SSD specifications.

Table 56. 1 TB SSD specifications

Capacity	1 TB
Height (approximate)	3.50 mm (0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	- Idle: 5 mW (PS4) - Active: 3.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 2 TB, PCIe NVMe, Class 25 SSD

The following table lists the M.2 2230, 2 TB SSD specifications.

Table 57. 2 TB SSD specifications

Capacity	2 TB
Height (approximate)	3.50 mm (0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe
Speed (maximum)	32 Gbps (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	4,000,797,360
Power source	
Power consumption (reference only)	- Idle: 5 mW (PS4) - Active: 3.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C

Table 57. 2 TB SSD specifications (continued)

Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 256 GB, PCIe NVMe, Class 35 SSD

The following table lists the M.2 2230, 256 GB SSD specifications.

Table 58. 256 GB SSD specifications

Capacity	256 GB
Height (approximate)	3.50 mm （0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	500,118,192
Power source	
Power consumption (reference only)	- Idle: 5 mW (PS4) - Active: 3.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 512 GB, PCIe NVMe, Class 35 SSD

The following table lists the M.2 2230, 512 GB SSD specifications.

Table 59. 512 GB SSD specifications

Capacity	512 GB
Height (approximate)	3.50 mm （0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe
Speed (maximum)	32 Gb/s (up to 4 lanes)

Table 59. 512 GB SSD specifications (continued)

MTBF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 3.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 1 TB, PCIe NVMe, Class 35 SSD

The following table lists the M.2 2230, 1 TB SSD specifications.

Table 60. 1 TB SSD specifications

Capacity	1 TB
Height (approximate)	3.50 mm　(0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 3.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 256 GB, PCIe NVMe, Opal Self-Encrypting Class 35 SSD

The following table lists the M.2 2230, 256 GB SSD, self-encrypting drive specifications.

Table 61. 256 GB SSD, self-encrypting drive specifications

Capacity	256 GB
Height (approximate)	3.50 mm　(0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	500,118,192
Power source	
Power consumption (reference only)	- Idle: 5 mW (PS4) - Active: 3.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 512 GB, PCIe NVMe, Class 40 SSD

The following table lists the M.2 2280, 512 GB SSD specifications.

Table 62. 512 GB SSD specifications

Capacity	512 GB
Height (approximate)	3.50 mm　(0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	- Idle: 5 mW (PS4 - L1.2) - Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C

Table 62. 512 GB SSD specifications (continued)

Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 1 TB, PCIe NVMe, Class 40 SSD

The following table lists the M.2 2280, 1 TB SSD specifications.

Table 63. 1 TB SSD specifications

Capacity	1 TB
Height (approximate)	3.50 mm （0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	- Idle: 5 mW (PS4 - L1.2) - Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 2 TB, PCIe NVMe, Class 40 SSD

The following table lists the M.2 2280, 2 TB SSD specifications.

Table 64. 2 TB SSD specifications

Capacity	2 TB
Height (approximate)	3.50 mm （0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe
Speed (maximum)	64 Gb/s (up to 4 lanes)

Table 64. 2 TB SSD specifications (continued)

MTBF	1.4M hours
Logical blocks	4,000,797,360
Power source	
Power consumption (reference only)	- Idle: 5 mW (PS4 - L1.2) - Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 512 GB, PCIe NVMe, Class 40 SSD, self-encrypting drive

The following table lists the M.2 2280, 512 GB SSD, self-encrypting drive specifications

Table 65. 512 GB SSD, self-encrypting drive specifications

Capacity	512 GB
Height (approximate)	3.50 mm (0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	- Idle: 5 mW (PS4 - L1.2) - Active: 4.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 1 TB, PCIe NVMe, Class 40 SSD, self-encrypting drive

The following table lists the M.2 2280, 1 TB SSD, self-encrypting drive specifications

Table 66. 1 TB SSD, self-encrypting drive specifications

Capacity	1 TB
Height (approximate)	3.50 mm (0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	● Idle: 5 mW (PS4 - L1.2) ● Active: 4.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

Media-card reader

The following table lists the media-card reader specifications on your OptiPlex Tower Plus 7020.

Table 67. Media-card reader (standard offering)

Media supported (Maximum capacity that is supported will vary by Flash Media Types)	
Media Supported	SDXC, SDHC, SD Secure Digital (SD) 4.0 UHS-II Secure Digital (SD) 3.0 UHS-I
Support Specification Versions	Secure Digital (SD) 4.0
Power source	
Max Power Requirements	1.2 A
Supply Voltage Range	3.3 V
Power Consumption	MS 0.08 mA
Environmental operating conditions (Non-condensing)	
Operating Temperature Range	0°C to 70°C
Relative Humidity Range	N/A
Environmental non-operating conditions (Non-condensing)	

Table 67. Media-card reader (standard offering) (continued)

Operating Temperature Range	N/A
Relative Humidity Range	N/A

Power supply compliance

The following table lists the power ratings specifications of your OptiPlex Tower Plus 7020.

Table 68. Power supply compliance

Description	Values	
Type	260 W internal power supply unit (PSU), 85% Efficient, 80 Plus Bronze	500 W internal power supply unit (PSU), 92% Efficient, 80 Plus Platinum
Compliance		
Erp Lot6 Tier 2 requirement	Yes	Yes
80 Plus compliant	Yes	Yes
Energy Star 8.0 compliant	Yes	Yes
GS mark compliant	Yes	Yes
FEMP Standby Power Compliant	Yes	Yes

Thermal dissipation

The following table lists the thermal dissipation of your OptiPlex Tower Plus 7020.

Table 69. Thermal dissipation

Power supply unit	Heat dissipation	Voltage
260 W (80 Plus Bronze)	260*3.412=888 BTU/hr	100 to 240 VAC, 50 to 60 Hz, 4.2 A/2.1 A
500 W (80 Plus Platinum)	500*3.412=1706 BTU/hr	100 to 240 VAC, 50 to 60 Hz, 7.0 A/3.5 A

CMOS battery

The following table lists the CMOS battery specifications of your OptiPlex Tower Plus 7020.

Table 70. CMOS battery

Brand	Type	Voltage	Composition	Battery life
MITSUBISHI	CR2032	3.0 V	Lithium metal	Continuous Discharge Under 15 kΩ Load to 2.0 V End-Voltage. 20℃±2℃ 940 Hrs. or Longer. 910 Hrs. or Longer after 12 mo.
VIC-DAWN	CR2032	3.0 V	Lithium metal	Continuous Discharge Under 15 kΩ Load to 2.0 V End-Voltage. 20℃±2℃ 1030 Hrs. or Longer. 980 Hrs. or Longer after 12 mo.

Accessories

The following table lists the supported accessories on your OptiPlex Tower Plus 7020.

Table 71. Accessories

Accessories
Monitors:
Dell 24 Monitor - P2422H
Dell 27 Monitor - P2723D
Dell UltraSharp 24 Monitor - U2424H
Keyboard and Mouse:
Dell Compact Multi-Device Wireless Keyboard - KB740
Dell Multi-Device Wireless Keyboard - KB700
Dell Premier Multi-Device Wireless Keyboard and Mouse - KM7321W
Audio:
Dell Premier Wireless Adaptive ANC Headset - WL7024
Dell Slim Conferencing Soundbar - SB522A
Webcam:
Dell UltraSharp Webcam - WB7022
Security Devices:
OptiPlex Tower Plus Cable Cover

Security

Software security

The following table lists the software security details of your OptiPlex Tower Plus 7020.

Table 72. Software security

Security options
Black and Secureworks
Dell Encryption
Dell Endpoint Security Suite Enterprise
Emergency Incident Response
Endpoint Detection and Response (EDR)
Incident Management Retainer
Intel Guard Technologies & Secure Key: Software Guard (SGX), Data Guard (vPro only), Boot Guard, BIOS Guard (Core CPU's only), OS Guard (Core CPU's only) and Secure Key (i5 or greater only)
Intel Runtime BIOS Resilience (Copper Point) with attestation via Nifty Rock + Intel TXT
Managed Endpoint Detection and Response

Table 72. Software security (continued)

Security options
McAfee® Small Business Security 30-day free trial
McAfee® Small Business Security 12-month Subscription
McAfee® Small Business Security 36-month Subscription
Next Generation Antivirus (NGAV)
OpenXT validation required
SafeData
SafeGuard and Response, powered by VMware Carbon
Support of Absolute Persistent Module BIOS agent v2
Threat Detection and Response (TDR)

Trusted Platform Module

The following table lists the Trusted Platform Module (TPM) of your OptiPlex Tower Plus 7020.

Table 73. Trusted Platform Module (TPM)

TPM: Nuvoton NPCT760JABYX
SPI interface
TPM 2.0
FIPs 140-2 certificate

Mil-SPEC

The OptiPlex Tower Plus 7020 meets military specifications for the following MIL-STD 810H tests verified by SGS laboratories:

Table 74. Military specifications

Test category	Test method	Test parameters	Result
Altitude (Storage/Air transport)	MIL-STD-810H, Method 500.6, Procedure I	- Test pressure: Equivalent to cabin altitude of 15,000 feet - Test temperature: 21ºC - Altitude change rate: <10 m/s - Duration: 1 hour	Pass
Altitude (Operational/Air carriage)	MIL-STD-810H, Method 500.6, Procedure II	- Test temperature: 21ºC - Altitude change rate: <10 m/s - Duration: 1 hour	Pass
High temperature (Storage and transition)	MIL-STD-810H, Method 501.7, Procedure I	- Test temperature: 33ºC to 71ºC (non-operational/ storage), Table 501.7—III High temperature cycles - Duration: 7 x 24 hours per cycle - Climate category A1: Hot dry	Fail

Table 74. Military specifications (continued)

Test category	Test method	Test parameters	Result
High temperature (Operation)	MIL-STD-810H, Method 501.7, Procedure II	- Test temperature: 32°C to 49°C (Ambient air), Table 501.7—III High temperature cycles - Duration: 5 x 24 hours per cycle - Climate category A1: Hot dry	Fail
Low temperature (Storage)	MIL-STD-810H, Method 502.7, Procedure I	- Test temperature: -51°C - Duration: 24 hours	Pass
Low temperature (Operation)	MIL-STD-810H, Method 502.7, Procedure II	- Test temperature: -29°C - Duration: 24 hours	Pass
Humidity	MIL-STD-810H, Method 507.6, Procedure I	- Induced cycles (Storage and Transit - Duration: Table 507.6-II (Hot-humid cycle B3) - Material category: Non-Hazardous items normal test duration - Duration: 12 hours, Air velocity = 1.5 m/s	Pass
Sand and dust (Blowing dust)	MIL-STD-810H, Method 510.7, Procedure I	(300 feet/minute) to 8.90 m/s (1750 feet/minute) - Temperature: 60°C - Relative humidity: 30%	Pass
Vibration (Operation)	MIL-STD-810H, Method 514.8, Procedure I	- Common carrier unknown orientation 1 hour/axis	Pass
Vibration (Storage)	MIL-STD-810H, Method 514.8, Procedure I	- General minimum integrity exposure 1 hour/axis	Fail
Shock (Functional)	MIL-STD-810H, Method 516.8, Procedure I	- Pulse shape: Half-sine - Acceleration: 185 g - Pulse duration: 2 millisecond - Shock direction: 6 faces (+/-X, +/-Y, +/-Z axes) - Number of shocks: 1 shock/axis/direction (total 6 shocks)	Fail
Shock (Transportation shock)	MIL-STD-810H, Method 516.8, Procedure II	- Material to be packaged - On-road shock: 5.10 g/11 m (Table 516.8-VII) - Off-road shocks: 15.20 g/5 ms (Table 516.8-VII) - Test unit orientations: x, y, and z axis for both test - Unit is non-operational during tests - Saw tooth wave form cab be replaced by other classical wave forms	Pass

Table 74. Military specifications (continued)

Test category	Test method	Test parameters	Result
		necessary to meet test equipment capability.	
Shock (Crash Hazard Shock)	MIL-STD-810H, Method 516.8 Procedure V	• Unit is non-operational during test • 185 g, 2 ms Half Sine 2 shocks/axis/direction for a total of 12 shocks ⓘ **NOTE:** Dell to use noted test to replace MIL-STD-8108, Method 516.8, Procedure V, Table 516.8-XIII	Pass
Bench handling	MIL-STD-810H, Method 516.8, Procedure VI	• Lifted edge of chassis raised 100m (4 in.) above horizontal bench top.	Pass

Acoustic noise emission information tower

The following table lists the acoustic noise emission information of your OptiPlex Tower Plus 7020.

Table 75. Acoustic noise emission information tower

Component	Test Configuration
CPU	I9-14900K RAPTOR LAKE REFRESH DT LGA B-0 125W 3.2GHz 8+16 P2K vPro 36MB 32EU
Memory	DIMM, 32GB*1, 5600, 2RX8, 16, DDR5, NU
HDD (#, capacity)	SSDR, 1TB*1, P34, 30S3, SMSNG, PM991a
ODD	DVD +/- RW, 8X, 9.5T, PLDS
Graphics Adapter	UMA

Table 76. Declared Sound Power (LWAd)

Operating Mode	Declared Sound Power(LWAd)
Idle	2.9
HDD Operating	3
CPU Stressed	3.3
ODD Operating	4.9

Table 77. A-Weighted Sound Pressure Level (dB)

Operating Mode	A-Weighted Sound Pressure Level (dB)	
	Tabletop System	
	Operator Position	**Bystander Position**
Idle	17.6	15.8
HDD Operating	18	16.3
CPU Stressed	20.9	18.1
ODD Operating	40.7	33.3

All tests are conducted according to ISO 7779 and declared according to ISO 9296 except CPU Stressed. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.

Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

Chassis enclosure and ventilation requirements

Enclosure ventilation

If your enclosure has doors, they need to be of a type that allows at least 30% airflow through the enclosure (front and back).

Enclosure minimum clearance

Leave a 10.20 cm (4 in.) minimum clearance on all vented sides of the computer to permit the airflow required for proper ventilation.

Recommended enclosure

Do not install your computer in an enclosure that does not allow airflow/dusty environment/temperate over 35°C. Do not put any objects to directly block air-vent. This restricts the airflow and impacts your computer's performance, possibly causing it to overheat.

Open desk minimum clearance

If your computer is installed in a corner, on a desk, or under a desk, leave at least 5.10 cm (2 in.) clearance from the back of the computer to the wall to permit the airflow required for proper ventilation.

System management features

Dell commercial systems come with a number of systems management options that are include by default for In-Band management with our Dell Client Command Suite. In-Band management meaning that the Operating System is functional and the device is connected to a network so that it can be managed. The Dell Client Command Suite of tools can be leveraged individually or with a systems management console like SCCM, LANDESK, KACE, etc.

We also offer Out-of-Band management as an option. Out-of-band management is when the system does not have a functional operating system or is turned off and you still want to be able to manage the system in that state.

Dell Client Command Suite for in-band systems management

Dell Client Command Suite is a free toolkit available for download, for all Latitude Rugged tablets at dell.com/support, that automates and streamlines systems management tasks, saving time, money, and resources. It consists of the following modules that can be used independently, or with a variety of systems management consoles such as SCCM.

Dell Client Command Suite's integration with VMware Workspace ONE Powered by AirWatch, now allows customers to manage their Dell client hardware from the cloud, using a single Workspace ONE console.

Dell Command | Deploy enables easy operating system (OS) deployment across all major OS deployment methodologies and provides numerous system-specific drivers that have been extracted and reduced to an OS-consumable state.

Dell Command I Configure is a graphical user interface (GUI) admin tool for configuring and deploying hardware settings in a pre-OS or post-OS environment, and it operates seamlessly with SCCM and Airwatch and can be self-integrated into LANDesk and KACE. Simply, this is all about the BIOS. Command I Configure allows you to remotely automate and configure over 150+ BIOS settings for a personalized user experience.

Dell Command I PowerShell Provider can do the same things as Command I Configure, but with a different method. PowerShell is a scripting language that allows customers to create a customized and dynamic configuration process.

Dell Command I Monitor is a Windows Management Instrumentation (WMI) agent that provides IT admins with an extensive inventory of the hardware and health-state data. Admins can also configure hardware remotely by using command line and scripting.

Dell Command | Update (end-user tool) is factory-installed and allows admins to individually manage and automatically present and install Dell updates to the BIOS, drivers, and software. Command I Update eliminates the time-consuming hunting and pecking process of update installation.

Dell Command I Update Catalog provides searchable metadata that allows the management console to retrieve the latest system-specific updates (driver, firmware or BIOS). The updates are then delivered seamlessly to end-users using the customer's systems management infrastructure that is consuming the catalog (like SCCM).

Dell Command | vPro Out of Band console extends hardware management to systems that are offline or have an un-reachable OS (Dell exclusive features).

Dell Command | Integration Suite for System Center - This suite integrates all the key components of the Client Command Suite into Microsoft System Center Configuration Manager 2012 and Current Branch versions.

Out-of-band systems management

Intel Standard Manageability option **must be configured in our factory at the time of purchase, as it is NOT field upgradable.** It offers out-of-band management and DASH compliance (https://registry.dmtf.org/registry/results/field_initiative_name%3A%22DASH%201.0%22).

Getting help and contacting Dell

Self-help resources

You can get information and help on Dell products and services using these self-help resources:

Table 78. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
Tips	💡
Contact Support	In Windows search, type `Contact Support`, and press Enter.
Online help for operating system	www.dell.com/support/windows www.dell.com/support/linux
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals, and documents.	Your Dell computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at www.dell.com/support. For more information about how to find the Service Tag for your computer, see Locate the Service Tag on your computer.
Dell knowledge base articles	1. Go to www.dell.com/support. 2. On the menu bar at the top of the Support page, select **Support** > **Knowledge Base**. 3. In the Search field on the Knowledge Base page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see www.dell.com/contactdell.

ⓘ **NOTE:** Availability varies by country/region and product, and some services may not be available in your country/region.

ⓘ **NOTE:** If you do not have an active Internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog.